



# Dongfeng Cummins Curve and Datasheet

Engine Type: ISDe160 30(Truck)

Curve Number: FR92150



# Dongfeng Cummins Engine Co.,Ltd

## Engine Performance Curve FR92150

### EURO 3

Engine Model: ISDe160 30

Engine Configuration: D323002BX03

Advertised Power: 118 kW @ 2700 rpm

CPL: 1981

160 PS @ 2700 rpm

Peak Torque: 500 N.m @ 1400 rpm

Displacement: 4.5 L

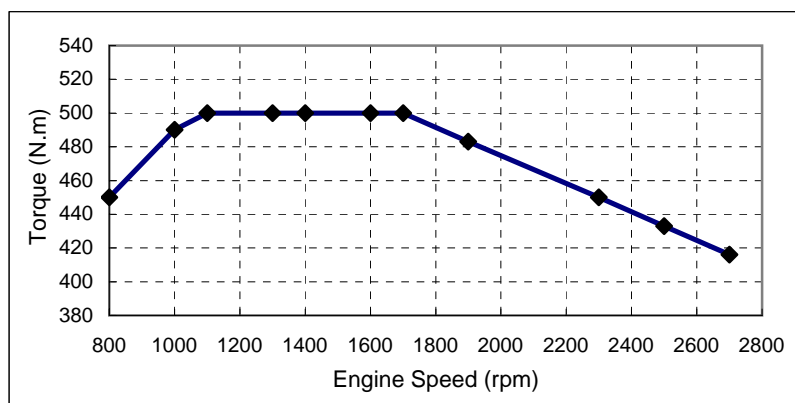
Bore: 107 mm

Aspiration: Turbocharged & Charge Air Cooled

Cylinders: 4

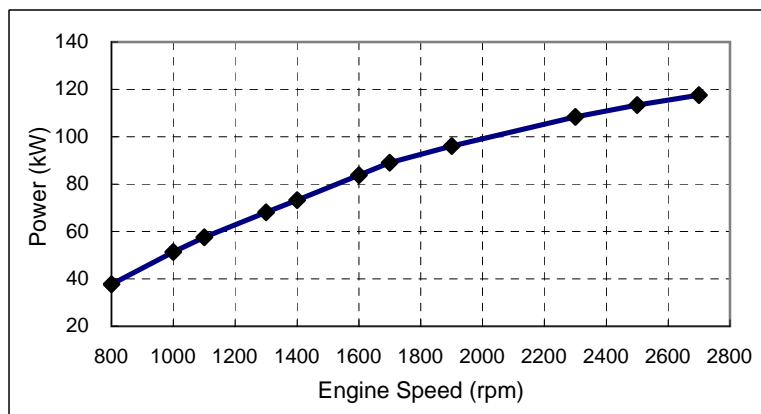
Stroke: 124 mm

Fuel System: Bosch (HPCR)



### Torque

rpm	N.m
800	450
1000	490
1100	500
1300	500
1400	500
1600	500
1700	500
1900	483
2300	450
2500	433
2700	416



### Power

rpm	kW
800	38
1000	51
1100	58
1300	68
1400	73
1600	84
1700	89
1900	96
2300	108
2500	113
2700	118

Performance data shown is nominal, and is to 80/1269/EEC(as amended) conditions of 990mbar barometric pressure and 25 deg C air intake temperature.

All data are based on the engine operating with fuel system, water pump, lubricating oil pump and with inle restriction and exhaust restriction at or below datasheet limits. Not included are compressor,fan,alternator, optional equipment and driven components.



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## Engine Performance Curve FR92150

### General

Certification: GB 17691—2005  
 Compression Ratio: ..... 17.3:1

### Air Intake System

Max. temperature rise between ambient air and turbo air inlet: ..... - °C 15  
 Max. intake restriction with dry type air cleaner, with clean filter  
 Medium Duty: ..... - kPa 2.9  
 Heavy Duty: ..... - kPa 3.7  
 Max. intake restriction with dirty filter: ..... - kPa 6.2

### Charge Air Cooling

Max. temperature rise between ambient air and intake manifold: ..... - °C 30  
 Max.  $\Delta P$  between turbo out and manifold in: ..... - kPa 13.5  
 Intake pipe size normally acceptable: ..... - mm dia 65

### Exhaust System

Max. back pressure imposed by complete exhaust system: ..... - kPa 10  
 Exhaust pipe size normally acceptable: ..... - mm dia 75

### Cold Start Performance

Min. unaided cold start temperature: ..... -12 °C @120 average rpm  
 Min. aided cold start temperature: ..... -35 °C @120 average rpm

### Performance Data

Idle Speed: ..... - rpm 600 - 800  
 Maximum no load governed speed: ..... - rpm 3050  
 Maximum over speed capability(15secs max.): ..... - rpm 4200  
 Maximum altitude for continuous operation: ..... - m 4700  
 Clutch engagement torque at 800rpm: ..... - N.m 450  
 When using exhaust brakes:  
 Exhaust pressure, at 3050rpm, at turbocharger outlet, must not exceed: ..... - kPa 413  
 Approximate engine retardation: ..... - kW TBD

Engine Speed RPM	Oil Pressure kPa	Air to Turbo m³/min	Air From Turbo		Exhaust Flow m³/min	Exhaust Temp °C	Fuel Consumption kg/hr	Coolant Flow l/min	Heat Rejection		Friction Power kW
			Flow kg/min	Pressure Pa					Coolant kW	Air kW	
2500	416.3	9.84		148.8		439.155		249.05	57.2	20.4	23.0
2300	412.8	9.45		153.9		501.481		228.55	61.2	17.3	19.0
1400	319.1	5.76		129.6		519.618		142.45	48.45828	8.58108	11.0

All values within  $\pm 5\%$

Base engine data refer to Datasheet D323002BX03

All data subject to change without notice. Dongfeng Cummins Engine Co., Ltd